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PATENT

Att'y Docket No. IBM/91/124

Confirmation No. 5010



Technology Center 2100

CERTIFICATE OF MAILING UNDER 37 C.F.R. 1.8

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Scott A. Stinebruner

Reg. No. 38,323

DATE

1 JULY 2002

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: William Joseph Armstrong et al.

Art Unit: 2161

Serial No.: 09/314,324

Examiner: Thomas A. Dixon

Filed : May 19, 1999

For : MANAGEMENT OF A CONCURRENT USE LICENSE IN A LOGICALLY-PARTITIONED COMPUTER

Box NON-FEE AMENDMENT
Assistant Commissioner for Patents
Washington, DC 20231

AMENDMENT TRANSMITTAL

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GROUP 3600

1. ☒ Transmitted herewith is a Response.
2. ☐ Small Entity status of this application under 37 CFR 1.9 and 1.27 has been established by a verified statement previously submitted.
- ☐ Enclosed is a verified statement to establish Small Entity status
- ☒ Other than a Small Entity

3. The fee has been calculated as shown below:

CALCULATION OF FEES

Fee:	Number of Claims After Amendment:		Previously Paid For:	No. Extra:	At Rate:	Amount:
Total Claims	20	minus	20	0	\$18	\$0.00
Independent Claims	4	minus	4	0	\$84	\$0.00
MULTIPLE DEPENDENT CLAIM FEE					\$280	\$0.00
TOTAL FEE FOR CLAIMS:						\$0.00

- ☒ No additional fee for claims is required.

4. ☐ Attached is a check in the sum of \$_____ for additional claims.
☐ Please charge my Deposit Account No. 23-3000 in the amount of \$_____.

5. **The proceedings herein are for a patent application and the provisions of 37 CFR 1.136 apply. Complete (a) or (b) as applicable.**

- ☐ (a) Applicant petitions for an extension of time under 37 CFR 1.136 for the total number of months checked below:

	<u>Ext. Mos.</u>	<u>Large entity</u>	<u>Small entity</u>
<input type="checkbox"/>	one month	\$ 110.00	\$ 55.00
<input type="checkbox"/>	two months	\$ 400.00	\$ 200.00
<input type="checkbox"/>	three months	\$ 920.00	\$ 460.00
<input type="checkbox"/>	four months	\$1,440.00	\$ 720.00
<input type="checkbox"/>	five months	\$1,960.00	\$ 980.00

Extension fee due with this request:

\$

Method of Payment:

Check enclosed in the amount of \$_____

If an additional extension of time is required, please consider this a petition therefor.

(Check and complete the next item, if applicable)

- ☐ An extension for _____ months has already been secured and the fee paid thereof of \$_____ is deducted from the total fee due for the total months of extension now requested. Extension fee due with this request \$_____.

OR

- ☒ (b) **Applicant believes that no extension of time is required. However, this conditional petition is being made to provide for the possibility that applicant has inadvertently overlooked the need for a petition for extension of time.**

6. ☒ **If any additional fee for claims or extension of time is required, charge Account No. 23-3000.**

Respectfully submitted,

WOOD, HERRON & EVANS, L.L.P.

By:



Scott A. Stinebruner

Reg. No. 38,323

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Cincinnati, Ohio 45202-2917
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Enclosed:

Amendment Transmittal (in duplicate) containing Certificate of Mailing under 37 C.F.R. 1.8
Response
Reply Postcard

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RESPONSE

GROUP 3600

Assistant Commissioner for Patents
Washington, DC 20231

Sir:

This paper is submitted in reply to the Office Action dated April 9, 2002, within the three-month period for response. Reconsideration and allowance of all pending claims are respectfully requested.

In the subject Office Action, claims 1-20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,375,206 to Hunter et al. in view of U.S. Patent No. 6,269,391 to Gillespie. Applicants respectfully traverse the Examiner's rejections to the extent they are maintained.

Turning first to claim 1, this claim recites a method of managing a concurrent use software license in a logically-partitioned computer, which includes tracking concurrent uses of the computer program across a plurality of logical partitions in a logically-partitioned computer, and selectively denying a request to use the computer program in a first logical partition if permitting the requested use would violate a concurrent use software license associated with the computer program.

In rejecting claim 1, the Examiner has modified his original rejection based upon Hunter et al. and McGilton et al. to replace McGilton et al. with Gillespie. Similar to the original rejection, the Examiner has admitted that Hunter et al. does not specifically disclose monitoring a plurality of logical partitions (Office Action, page 3). Instead, the Examiner argues that Gillespie discloses a system that monitors multiple partitions and denying a request to execute to provide

an indication of programs that may not be processed in parallel, and as a result, it would have been obvious to modify Hunter et al. to monitor multiple logical partitions.

The Examiner's rejection therefore essentially boils down to the question of whether the prior art suggests modifying the license management system of Hunter et al. to track program usages across multiple logical partitions. Applicants respectfully submit that the answer to this question is no.

As Applicants have noted before, Hunter et al. itself cannot be relied upon to suggest monitoring multiple logical partitions in a concurrent use licensing system. In fact, as the license management functionality disclosed in Hunter et al. is shown as an application that relies on an underlying operating system (see, e.g., Fig. 1), were the Hunter et al. license manager installed on a logically-partitioned computer, the license manager would be unable to detect usages of licensed applications on other logical partitions, since typically the operating system instances running in each logical partition of a logically partitioned computer are unaware of the presence of other logical partitions.

Also, Gillespie does not suggest any modification to Hunter et al. to track usages across multiple logical partitions. Gillespie instead discloses a scheduling kernel that schedules the execution of multiple threads, including threads associated with multiple virtual machines, which the Examiner analogizes to logical partitions. Even assuming that a virtual machine is analogous to a logical partition, however, Gillespie does not disclose anything even arguably analogous to license management for a computer program.

Instead, Gillespie is focused upon the execution of threads, and specifically in part upon preventing threads in an exclusion set from executing in parallel. Much of this functionality is for the purpose of supporting load balancing, to ensure that various threads in the system are granted adequate execution time, typically according to "fairness".

Claim 1, however, recites "tracking uses of a computer program across a plurality of logical partitions." Put another way, claim 1 recites tracking multiple instances of the *same* computer program, which is one of the primary purposes of a license management system. Gillespie falls far short of disclosing or suggesting this feature for a number of reasons.

First, threads are not equivalent to the computer programs that are traditionally the subject of license management. Rather, threads are more analogous to low level components of a

program, e.g., to permit various functions in a program to be performed in parallel. It is highly unlikely that individual threads, apart from any programs of which they are associated, would ever be subject to a concurrent use license.

Second, there is no disclosure or suggestion in Gillespie as to tracking concurrent uses of the *same* thread. Concurrent use licensing limits the number of copies or instances of a particular program that may execute at any given time in a computer system. Gillespie, on the other hand, only discusses locking out threads from execution whenever these threads are associated with other threads in "exclusion sets." Therefore, even if the Examiner was to assert that the threads in Gillespie were analogous to computer programs, the Examiner has still failed to establish that Gillespie discloses or suggests tracking multiple uses of the *same thread* across multiple logical partitions. Absent such a suggestion, the Examiner's rejection cannot be maintained.

Apart from Gillespie, the Examiner has failed to establish any other evidence of a motivation in the art to modify Hunter et al. as suggested by the Examiner. Given, however, that Gillespie does not supply the necessary motivation to modify, the Examiner has failed to establish the proper motivation for modifying Hunter et al. to suggest Applicants' claimed invention.

Applicants respectfully submit, in fact, that the Examiner is improperly relying on hindsight in making the rejection, as Gillespie discloses a thread scheduling algorithm that has absolutely nothing to do with license management. One of ordinary skill in the art would never look to Gillespie's thread scheduling algorithm and apply its teachings to track concurrent usages of a computer program across multiple logical partitions. It is only in Applicants specification that the problem of tracking concurrent usages of a program across multiple logical partitions, as well as Applicants' unique solution, is ever raised.

Absent some independent source for the problem or solution, the Examiner's rejection is necessarily based upon hindsight. The rejection of claim 1 therefore cannot be maintained. Reconsideration and allowance of claim 1, as well as of claims 2-9 which depend therefrom, are therefore respectfully requested.

Next, as to independent claims 10 and 19, each of these claims likewise recites the tracking of concurrent uses of a licensed program across a plurality of logical partitions. Therefore, for the same reasons as presented above with respect to claim 1, claims 10 and 19 are

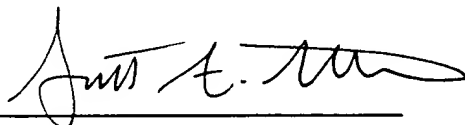
also non-obvious over the prior art of record. Reconsideration and allowance of these claims, as well as of claims 11-17 and 20 which depend therefrom, are therefore respectfully requested.

Finally, as to independent claim 18, this claim recites the tracking of concurrent uses of a computer program across a plurality of logical partitions, similar to the other independent claims pending in this case. As such, the claim is patentable for the reasons outlined above. Moreover, claim 18 additionally recites a partition manager through which the concurrent uses are tracked, and a plurality of license managers, each of which being resident in an associated logical partition. Applicants respectfully submit that neither Hunter et al. nor Gillespie disclose or suggest this arrangement of license managers with respect to a partition manager. Accordingly, reconsideration and allowance of claim 18 are respectfully requested.

In summary, Applicants respectfully submit that all pending claims are novel and non-obvious over the prior art of record. Reconsideration and allowance of all pending claims are therefore respectfully requested. If the Examiner has any questions regarding the foregoing, or which might otherwise further this case onto allowance, the Examiner may contact the undersigned at (513) 241-2324. Moreover, if any other charges or credits are necessary to complete this communication, please apply them to Deposit Account 23-3000.

Respectfully submitted,

1 JULY 2002
Date



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